

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [39] with the following rewritten paragraph.

FIG. 9 also illustrates a filter assembly ~~210~~209 coupled to sample cell 200. Filter assembly ~~210~~209 includes a filter tubing 212 in which are provided at least one filter element ~~214~~218 coupled to a mounting block ~~216~~220. As is known in the art, filter elements are hydrophobic in that they allow gas to pass through them, while preventing liquids from passing. It is to be understood that the present invention contemplates using the sample cell of the present invention in combination with any type of filter. However, in a preferred embodiment, the filter structure used with the sample cell is that disclosed in co-pending US patent application no. 60/416,874, the contents of which are incorporated herein by reference.

Please replace paragraph [7] with the following rewritten paragraph.

As the patient breathes, gases are continuously drawn at sample flow rates ranging from 50 to 250 ml/min from the breathing circuit through the sampling tube and into the sample cell located within or near the monitor. To reduce the time delay associated with the transport of the gas sample through the sampling tube, conventional sidestream systems drawn gas at sample ~~at~~ rates of 180 ml/min or higher. However, it is desirable to remove as little gas as possible from the breathing circuit and at the same time faithfully reproduce the gas waveform. Therefore, lower flow rates such as 50 ml/min have been used. In order not to degrade performance, as measured by accuracy of the end-tidal gas values, particularly at higher respiratory rates that may be seen in infants, careful attention must be paid to the total flow path from sampling site to the sample cell. While issues, such as mechanical mixing of the sample during transport in the sample line, and diffusion of the waveform within the sample line during transport, can be addressed by the selection of smaller bore tube, the proper design of the flow

path through the sample cell is critical to achieve optimal performance. Present designs of sample cells have sample cell chamber volumes that are too large and/or inlet and outlets that tend to distort the profile of the waveform.